WHAT IS CLAIMED IS:

1. A method for creating a two-dimensional representation of a revolved three-dimensional solid, said method comprising the steps of:

selecting the three-dimensional solid for which the associative two-dimensional section is to be generated; and

5   generating a single equivalent profile curve for each revolved face of the three-dimensional solid in a two-dimensional plane.

2. A method in accordance with Claim 1 wherein the three-dimensional solid includes a plurality of adjacent faces, said step of generating a single equivalent curve further comprises the steps of:

10   identifying a seed revolved edge on the three-dimensional solid selected; and

querying the three-dimensional solid for revolved faces adjacent to the seed revolved edge.

3. A method in accordance with Claim 2 wherein said step of querying the three-dimensional solid further comprises the steps of:

15   creating a trace list including each face identified and traversed while querying the three-dimensional solid; and

querying the solid with a loop-wise sequence to generate a contiguous path of profile curves.

4. A method in accordance with Claim 3 wherein the three-dimensional solid includes one of a torodial and spherical face, said step of generating a single
20   equivalent profile curve further comprising the step of creating an arc as an equivalent profile curve.

5. A method in accordance with Claim 4 wherein the three-dimensional solid includes one of a conical, planar, or cylindrical face, said step of generating a single equivalent profile curve further comprising the step of creating a line as an equivalent profile curve.

6. A method in accordance with Claim 5 wherein the three-dimensional solid includes a revolved-spline face, said step of generating a single equivalent profile curve further comprising the step of creating a spline as an equivalent profile curve.

7. An apparatus for generating a two-dimensional representation of a three-dimensional solid, said apparatus comprising a processor programmed to generate a single equivalent profile curve for each revolved face in a two-dimensional plane.

8. An apparatus in accordance with Claim 7 wherein the three-dimensional solid has cyclic symmetry, said processor further programmed to generate the two-dimensional representation without generating intersection lines within the three-dimensional solid.

9. An apparatus in accordance with Claim 8 wherein said processor further programmed to follow a loop-wise sequence to create a contiguous path of profile curves.

10. An apparatus in accordance with Claim 9 wherein said processor further programmed to identify a seed revolved edge bordering a face and to query the three-dimensional solid from the revolved edge to each adjacent face to circumscribe the three-dimensional solid.

11. An apparatus in accordance with Claim 10 wherein the three-dimensional solid includes one of a torodial and spherical face, said processor further programmed to generate an arc.

12. An apparatus in accordance with Claim 10 wherein the three-dimensional solid includes one of a conical, planar, and cylindrical face, said processor further programmed to generate a line.

13. An apparatus in accordance with Claim 10 wherein the three-dimensional solid includes a revolved-spline face, said processor further programmed to generate a spline.

14. A system for creating a two-dimensional representation of a three-dimensional solid, said system comprising;

a client system comprising a browser;

a data storage device for storing information relevant to a plurality of users; and

a server system configured to be coupled to said client system and said data storage device, said server system further configured to generate a single equivalent curve for each revolved face of the three-dimensional solid in a two-dimensional plane.

15. A system in accordance with Claim 14 wherein said server system further configured to follow a loop-wise sequence to create a contiguous path of profile curves.

16. A system in accordance with Claim 15 wherein said server system further configured to create the two-dimensional representation without generating intersection lines extending through the three-dimensional solid.

17. A system in accordance with Claim 16 wherein said server system further configured to identify a seed revolved edge.

18. A system in accordance with Claim 17 wherein the three-dimensional solid has cyclic symmetry, said server system further configured to query the three-dimensional solid from the identified seed revolved edge through each subsequent adjacent face until returning to the seed revolved edge.

19. A system in accordance with Claim 18 wherein the three-dimensional solid has one of a torodial face and a spherical face, said server system further configured to generate an arc.

20. A system in accordance with Claim 19 wherein the three-dimensional solid has one of a conical face, a planar face, and a cylindrical face, said server system further configured to generate a line.